

WHAT IS CLAIMED IS:

1. A system for recording a writing performed on a surface comprising:
a stylus comprising a first signal transmitter for transmitting position signals corresponding to positional data representative of the writing when the stylus is disposed adjacent to the surface; and
a detector assembly comprising a plurality of position signal receivers for receiving the position signals transmitted by the stylus and further comprising a storage medium for recording the positional data.
2. The system of claim 1 wherein the stylus further comprises a second signal transmitter for transmitting timing signals and wherein the detector assembly further comprises a timing signal receiver for receiving the timing signals transmitted by the stylus.
3. The system of claim 2 wherein the timing signals are infrared light signals.
4. The system of claim 3 wherein the timing signal receiver is an infrared detector.
5. The system of claim 1 wherein the position signals are ultrasound signals.
6. The system of claim 1 wherein the detector assembly further comprises logic for converting the position signals to the positional data.
7. The system of claim 1 further comprising a processing unit for displaying the positional data representative of the writing.
8. The system of claim 7 wherein the processing unit is a desktop computer, a laptop computer, a wireless device, a hand-held device, a printer, or any combination thereof.
9. The system of claim 7 further comprising a display device and a user interface.

10. The system of claim 1 further comprising an eraser comprising a third signal transmitter for transmitting position signals corresponding to positional information representative of removal of the writing when the eraser is disposed adjacent to the surface.

11. The system of claim 1 wherein the plurality of position signal receivers are condenser microphones.

12. The system of claim 11 wherein the condenser microphones are omnidirectional condenser microphones.

13. The system of claim 11 wherein the condenser microphones are pre-polarized condenser microphones.

14. The system of claim 11 wherein the condenser microphones have a frequency range of about 1 Hz to about 100 kHz.

15. The system of claim 14 wherein the condenser microphones have a frequency range of about 50 Hz to about 20 kHz.

16. The system of claim 1 wherein the detector assembly comprises a base appliance for receiving the position signals from the first signal transmitter and for recording the positional data, and a personality module removably attachable to the base appliance for providing a user interface for the detector assembly.

17. The system of claim 16 wherein the stylus further comprises a second signal transmitter for transmitting timing signals and wherein the base appliance further comprises a timing signal receiver for receiving the timing signals from the stylus.

18. The system of claim 17 wherein the timing signal receiver is an infrared detector.

19. The system of claim 16 wherein the base appliance further comprises logic for converting the position signals to positional data.

20. The system of claim 19 wherein the plurality of position signal receivers are condenser microphones.

21. The system claim 20 wherein the condenser microphones are omnidirectional condenser microphones.

22. The system of claim 20 wherein the condenser microphones are pre-polarized condenser microphones.

23. The system of claim 20 wherein the condenser microphones have a frequency range of about 1 Hz to about 100 kHz.

24. The system of claim 23 wherein the condenser microphones have a frequency range of about 50 Hz to about 20 kHz.

25. The system of claim 16 wherein the personality module is in communication with a computer, a wireless device, a network, a printer, or a removable storage medium.

26. The system of claim 16 wherein the user interface of the personality module is buttons, LEDs, LCDs, buzzers, or any combination thereof.

27. The system of claim 16 wherein the personality module further comprises logic.

28. The system of claim 1 wherein the detector assembly is powered by a power supply wherein the power supply is a battery or an external power supply.

29. The system of claim 1 wherein the detector assembly further comprises an attachment mechanism for permanently attaching the detector assembly to the writing surface.

30. The system of claim 1 wherein the detector assembly further comprises a security mechanism for securing the detector assembly to the writing surface.

31. The system of claim 1 wherein the detector assembly further comprises an attachment mechanism for removably attaching the detector assembly to the writing surface.

32. The system of claim 1 wherein the detector assembly further comprises a hinge mechanism for folding the detector assembly.

33. The system of claim 32 wherein the hinge mechanism comprises a positive feedback locking mechanism.

34. The system of claim 1 wherein the detector assembly has a plurality of power states.

35. The system of claim 1 wherein the writing includes erasing.

36. The system of claim 1 wherein the surface is a whiteboard, a blackboard, a clipboard, a desktop, a wall, a projection screen, a flip chart tablet, a glass pane, or an active display.

37. A system for recording a writing performed on a surface comprising:
a stylus comprising a first signal transmitter for transmitting position signals corresponding to positional data representative of the writing when the stylus is disposed adjacent to the surface; and

a detector assembly comprising a plurality of condenser microphones for receiving the position signals transmitted by the stylus.

38. The system of claim 37 wherein the detector assembly further comprises logic for converting the position signals to the positional data, and a storage medium for recording the positional data.

39. The system of claim 37 wherein the stylus further comprises a second signal transmitter for transmitting timing signals and wherein the detector assembly further comprises an infrared detector for receiving the timing signals transmitted by the stylus.

40. A detector for use in a transcription system, the transcription system including a stylus for transmitting signals when the stylus is disposed adjacent to a surface, the detector comprising:

a base appliance comprising a plurality of signal receivers for receiving the position signals transmitted by the stylus, logic for converting the position signals to positional data, and an internal local storage medium for recording the positional data; and

a personality module removably attachable to the base appliance for providing a user interface for the detector.

41. The detector of claim 40 wherein the base appliance further comprises a timing signal receiver for receiving timing signals transmitted by the stylus.

42. The detector of claim 41 wherein the timing signal receiver is an infrared detector.

43. The detector of claim 40 wherein the plurality of signal receivers are condenser microphones.

44. The detector of claim 43 wherein the condenser microphones are omnidirectional condenser microphones.

45. The detector of claim 43 wherein the condenser microphones are pre-polarized condenser microphones.

46. The detector of claim 43 wherein the condenser microphones have a frequency range of about 1 Hz to about 100 kHz.

47. The detector of claim 46 wherein the condenser microphones have a frequency range of about 50 Hz to about 20 kHz.

48. The detector of claim 40 wherein the personality module is in communication with a computer, a wireless device, a network, a printer, or a removable storage medium.

49. The detector of claim 40 wherein the personality module further comprises logic.

50. The detector of claim 40 wherein the detector is powered by a power supply wherein the power supply is a battery or an external power supply.

51. The detector of claim 40 further comprising an attachment mechanism for permanently attaching the detector to the writing surface.

52. The detector of claim 51 further comprising a security mechanism for securing the detector to the writing surface.

53. The detector of claim 40 further comprising an attachment mechanism for removably attaching the detector to the writing surface

54. The detector of claim 40 further comprising a hinge mechanism for folding the base appliance.

55. The detector of claim 40 wherein the timing signals are infrared light signals.

56. The detector of claim 40 wherein the position signals are ultrasound signals.

57. A detector for use in a transcription system, the transcription system including a stylus for transmitting signals when the stylus is disposed adjacent to a surface, the detector comprising:

a base appliance comprising a plurality of condenser microphones for receiving position signals transmitted by the stylus, the position signals corresponding to positional data representative of writing performed on the surface; and

a personality module removably attachable to the base appliance for providing a user interface for the detector.

58. The detector of claim 57 wherein the base appliance further comprises logic for converting the position signals to the positional data, and an internal local storage medium for recording the positional data.

59. A method for recording a writing performed on a surface comprising:

providing a detector comprising a plurality of condenser microphones capable of receiving an acoustic signal;

sending the acoustic signal from a stylus at a position on the surface when the stylus is disposed adjacent to the surface;

receiving the acoustic signal with the plurality of condenser microphones;

converting the acoustic signal to positional data;

recording the positional data; and

repeating the sending step, receiving step, converting step, and recording step to produce an image corresponding to the writing.

60. The method of claim 59 wherein the condenser microphones are omnidirectional condenser microphones.

61. The method of claim 59 wherein the condenser microphones are pre-polarized condenser microphones.

62. The method of claim 59 wherein the acoustic signal is an ultrasound signal.

63. The method of claim 59 further comprising
sending a timing signal from the stylus when the stylus is disposed adjacent to the
surface; and
receiving the timing signal by a timing signal receiver located on the detector.

64. The method of claim 63 wherein the timing signal is an infrared light signal and
the timing signal receiver is an infrared detector.

65. The method of claim 59 wherein the detector records the positional data.

66. The method of claim 65 further comprising
downloading the positional data from the detector to a processing unit; and
displaying the positional data by the processing unit.

67. The method of claim 66 further comprising
preparing the processing unit for recording the writing.

68. The method of claim 66 wherein the processing unit is a desktop computer, a
laptop computer, a wireless device, a hand-held device, a printer, or any combination thereof.

69. The method of claim 59 further comprising
displaying the positional data by a processing unit.

70. The method of claim 69 wherein the processing unit is a desktop computer, a
laptop computer, a wireless device, a hand-held device, a printer, or any combination thereof.

71. The method of claim 70 wherein the processing unit records the positional data.

72. A method for recording a writing performed on a surface comprising:
sending a position signal from a stylus when the stylus is disposed adjacent to the surface;
receiving the position signal with a detector comprising a plurality of signal receivers;
converting the position signal to positional data using logic located on the detector;
recording the positional data on a storage medium located on the detector; and
repeating the sending step, receiving step, converting step, and recording step to produce an image corresponding to the writing.

73. The method of claim 72 wherein the plurality of signal receivers comprise condenser microphones.

74. The method of claim 73 wherein the condenser microphones are omnidirectional condenser microphones.

75. The method of claim 73 wherein the condenser microphones are pre-polarized condenser microphones.

76. The method of claim 72 wherein the position signal is an ultrasound signal.

77. The method of claim 72 further comprising
sending a timing signal from the stylus when the stylus is disposed adjacent to the surface; and
receiving the timing signal with the plurality of signal receivers.

78. The method of claim 77 wherein the timing signals are infrared light signals and the plurality of signal receivers comprise infrared detectors.

79. The method of claim 72 further comprising
downloading the positional data from the detector to a processing unit.

80. The method of claim 79 wherein the processing unit is a desktop computer, a laptop computer, a wireless device, a hand-held device, a printer, or any combination thereof.

81. The method of claim 80 further comprising
displaying the positional data by the processing unit.

82. The method of claim 81 further comprising
repeating the sending step, the receiving step, the converting step, and the
displaying step to produce an image corresponding to the writing.

2023-03-14 10:00:00